



## PATENT COOPERATION TREATY

PCT

25 FEB 2005

INTERNATIONAL PRELIMINARY EXAMINATION REPORT  
(PCT Article 36 and Rule 70)

Applicant's or agent's file reference PCT1889HHBRon		<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/EP 03/09698	International filing date (day/month/year) 01.09.2003	Priority date (day/month/year) 30.08.2002	
International Patent Classification (IPC) or both national classification and IPC E21B34/02			
Applicant COOPER CAMERON CORPORATION et al.			
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 4 sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of sheets.</p>			
<p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the opinion</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>			
Date of submission of the demand  27.02.2004		Date of completion of this report  03.09.2004	
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465		Authorized Officer  Tompouloglou, C  Telephone No. +49 89 2399-2077 	

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/EP 03/09698

**I. Basis of the report**

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

**Description, Pages**

5-15 as originally filed

**Claims, Numbers**

1-25 as originally filed

**Drawings, Sheets**

1/2-2/2 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).  
☐ the language of publication of the international application (under Rule 48.3(b)).  
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority in written form.  
☐ furnished subsequently to this Authority in computer readable form.  
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.  
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:  
☐ the claims, Nos.:  
☐ the drawings, sheets:

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5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	3,4,6,7
	No: Claims	1,2,5,8
Inventive step (IS)	Yes: Claims	
	No: Claims	1-25
Industrial applicability (IA)	Yes: Claims	1-25
	No: Claims	

2. Citations and explanations

**see separate sheet**

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

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**POINT V**

1. Either of D1: US-A-2751022 / D2: US-A-2920863 discloses the subject-matter of claim 1 as is apparent from the enclosure, where the hand written references correspond to D1/D2 respectively.  
The same disclosure results even from the acknowledgement of common knowledge in col. 1, l. 14-25 of D3: US-A-4638833.  
Similarly each of D1, D2, D3 discloses (see for instance fig. 12, 13 of D1) also the subject-matter of claims 2, 5, 8.
2. The additional features of claims 3, 4, 6, 7, 24, 25 are routinely applied in the art as normal design possibilities, such that said claims cannot imply an inventive step.
3. The features of claims 9-23 have already been employed for the same purpose in a similar device, see document D4: US-A-3637188: discs 33, 34; nut 34; fig. 1 or D5: GB-A-625698: sleeves 105, 143 and spindle 16S. It would be obvious to the person skilled in the art, namely when the same result is to be achieved, to apply these features with corresponding effect to a throttle device according to either of documents D1, D2, D3, thereby arriving at a throttle device according to claims 9-23. The subject-matter of claims 9-23 does therefore not involve an inventive step (Article 33(3) PCT).

**FURTHER REQUIREMENTS**

1. Following was not taken into account:
  - Rule 6.3 (b) PCT: correct two part form of independent claims with regard to either of D1, D2, D3.
  - Rule 5.1 (a) ii) PCT: reference to documents D1-D5, D6: GB-A-9257876 and their disclosure.
  - To avoid confusion the pages of the description should have been numbered starting from page no. 1.

# ENCLOSURE

Claim 1 read upon D1/D2.

1. Throttle device <sup>14/fig.1</sup> with a device housing <sup>11/1</sup> comprising an inlet <sup>15/lower part</sup> and an outlet <sup>fig.1 lower part/fig.1 middle part</sup> and with a throttle element <sup>16/upper part</sup> arranged in a connecting duct <sup>A/fig.1</sup> connecting the inlet <sup>47, 35/5, 8</sup> and the outlet <sup>33c/3, 4</sup>, said throttle element comprising at least two throttle components <sup>47b, 35a/5, 8</sup> to be adjusted relative to one another and by the relative position of which an opening surface of the throttle element (5) is determined, at least the first throttle component being actively connected with a drive means <sup>col 8, l. 18-20 / col 3. l. 8-30</sup> for an adjustment relative to the second throttle component, characterized in that the throttle components are throttling discs <sup>47b, 35a/5, 8</sup> to be rotated relative to one another, at least one of which being movably connected with a rotary adjustment device <sup>col 8, l. 18-20 / col 3. l. 8-30</sup> of the drive means, each of the throttling discs comprising at least one throttle opening ( <sup>46, 49/14, 15</sup> the overlap of which determines the opening surface depending on the relative position of the throttling discs.